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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER

SERGEANT, RABON A

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 06/25/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/000,220

Applicant(s)

LO ET AL.

Examiner

Rabon Sergent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. Claims 1-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants have failed to specify the bases for the weight percent set forth within claims 1, 18, and 35. Furthermore, it is unclear if the weight percents are to sum to 100 percent.

Within claim 1, components (c) and (d) are not mutually exclusive; therefore, it is unclear if a single reactant can be used for both (c) and (d).

The subject matter of claims 13, 30, and 47 is ambiguous, because the claims specify that component (b) is capable of forming a hydrophilic group. While this statement is accurate for the ionic groups, it is inaccurate to state that the compound is capable of forming an oxyethylene group. The oxyethylene group is an integral group within the compound, being present from the instant of polyol production.

Within claims 18 and 35, it is unclear if the chain extender (d) is an optional component, in view of the proviso denoted by “when”. It is unclear how to interpret the claim if the NCO content exceeds 8.0 weight percent or is less than 0.8 weight percent.

Within claims 1-34, it is unclear if the “aqueous polyurethane” is a polyurethane aqueous dispersion.

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2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-4, 6, 9, 11-21, 23, 26, and 28-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Coogan ('644).

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Patentee discloses aqueous polyurethane dispersions comprising the reaction product of a prepolymer, derived from an aromatic diisocyanate, a polyol, and a hydrophilic group containing polyol, with a chain extender. The disclosed reactants, quantities of reactants, and properties of the dried film read on those set forth by applicants. See columns 1-5 and examples. In accordance with Office practice, applicants' product-by-process claims have been examined as products, since there is no evidence on the record that the process yields products having a patentable distinction.

4. Claims 5, 7, 8, 10, 22, 24, 25, 27, and 35-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coogan ('644) in view of Markusch et al. ('322).

As aforementioned, Coogan discloses aqueous polyurethane dispersions comprising the reaction product of a prepolymer, derived from an aromatic diisocyanate, a polyol, and a hydrophilic group containing polyol, with a chain extender.

5. Coogan differs from applicants' claims in two respects. Firstly, though the teachings of Coogan suggest a preference for the use of aromatic polyisocyanates, Coogan is largely silent regarding the use of aromatic polyisocyanates other than TDI and MDI. However, the position is taken that applicants' claimed polyisocyanates are conventional aromatic polyisocyanates, known to be useful in the urethane art at the time of invention, and, as a result, it would have been obvious to incorporate them into the composition of Coogan. Secondly, Coogan fails to disclose the sequential reaction of the hydrophilic group containing polyol and additional polyol in the

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preparation of the prepolymer. However, this reaction sequence was known at the time of invention. See column 13, lines 28-39 within Markusch et al. Markusch et al. further teaches that the order of reaction is not critical. In view of these secondary teachings, the position is taken that it would have been obvious to react the components in any sequence, including the sequence claimed by applicants.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.


RABON SERGENT
PRIMARY EXAMINER

R. Sergent

June 24, 2003